



DROUGHT INFORMATION STATEMENT

SOUTH CENTRAL TEXAS

WFO AUSTIN/SAN ANTONIO, TX

ISSUED: MARCH 16, 2010



Summary

The influence of El Nino during the fall and winter provided normal or above normal rainfall across South Central Texas. These frequent rainfall events have wiped out the drought conditions. San Antonio recorded the second wettest September to February period on record. The rainfall during this period was 31.09 inches. This is close to the yearly normal rainfall for San Antonio. In addition to abundant rainfall, temperatures have also been well below normal. Texas Climate Division 7, which includes Austin and San Antonio, recorded the coldest winter on record. The 2009/2010 winter was also the 5th coldest on record for the state of Texas and the coldest since 1978/1979. Rainfall for March has averaged one quarter to one inch with a few locations receiving nearly two inches. Figure 1 depicts the accumulated rainfall from March 2nd to March 15th. Figure 2 shows the year-to-date rainfall departures for 2010.

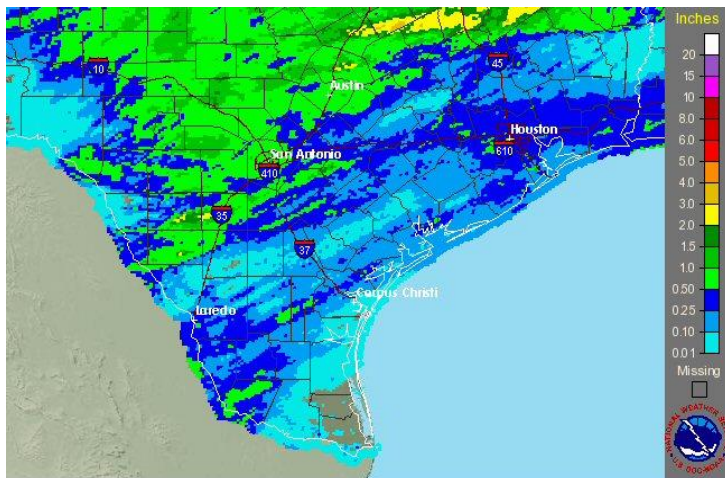


Figure 1 - Total Observed Rainfall March 2, 2010 through March 15, 2010.

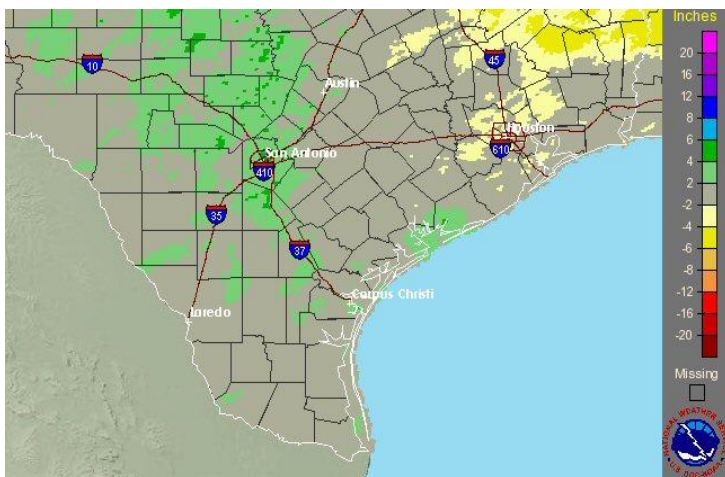


Figure 2 - Total Year-to-Date Rainfall Departure for 2010

Figure 3, the [U.S. Drought Monitor](#) issued on March 11th through the [National Drought Mitigation Center](#), shows that drought conditions across South Central Texas are no longer present. Rainfall over the last six months has helped to improve drought conditions by several categories since the beginning of September 2009. With additional spring rainfall more improvements are likely. In response to the rainfall, area reservoir, lake, and river levels continue to show improvement.

March 9, 2010

Valid 7 a.m. EST



Intensity

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional



Released Thursday, March 11, 2010

Author: R. Tinker, CPC/NOAA

Figure 3 – March 9th U.S. Drought Monitor County Level

The U.S. Drought Monitor is a comprehensive drought monitoring effort between government and academic partners. It is issued each Thursday morning and incorporates hydrometeorological data through 6 AM Tuesday.

Hydrologic Impacts

According to the [USGS Water Watch](#), most of the rivers across South Central Texas are reporting normal to above normal flows for this time of the year.

Reservoir conditions as of March 16th, 2010 are presented in the following table.

Reservoir	Pool Elevation (ft)	Current Elevation (ft)
Amistad	1117.00	1114.51
Medina Lake	1064.2	1030.52
Canyon Lake	909.00	909.21
Granger Lake	504.00	501.98
Georgetown Lake	791.00	792.38
Lake Buchanan	1020.00	1007.11
Lake LBJ	825.00	824.62
Lake Marble Falls	738.00	736.52
Lake Travis	681.00	679.34
Lake Austin	492.90	492.17

According to Texas Commission on Environmental Quality (TCEQ), there are several public water supply systems with mandatory water use restrictions across the Hill Country and South Central Texas. Figure 4 shows the locations of affected systems across Texas. This assessment is normally updated monthly.

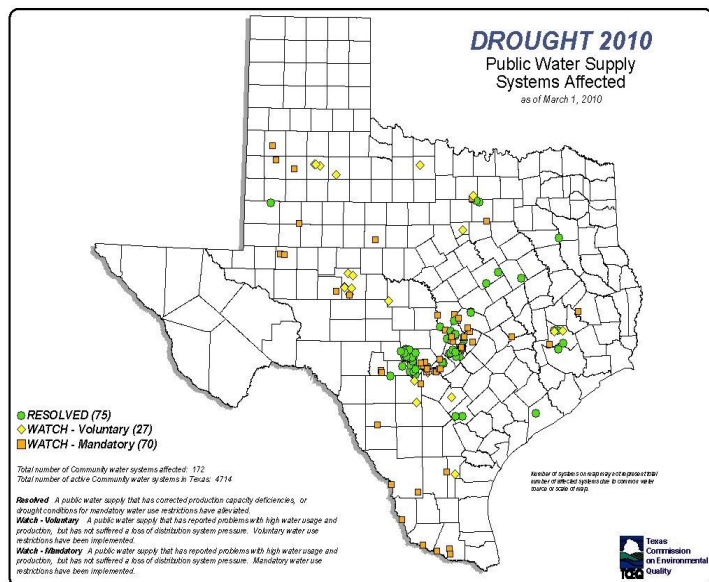


Figure 4 – Water Systems Under Water Use Restrictions as of March 1, 2010.

Fire Danger Impacts

As of March 15th, 4 counties in South Central Texas have county wide outdoor burn bans. These burn bans are established by county officials.

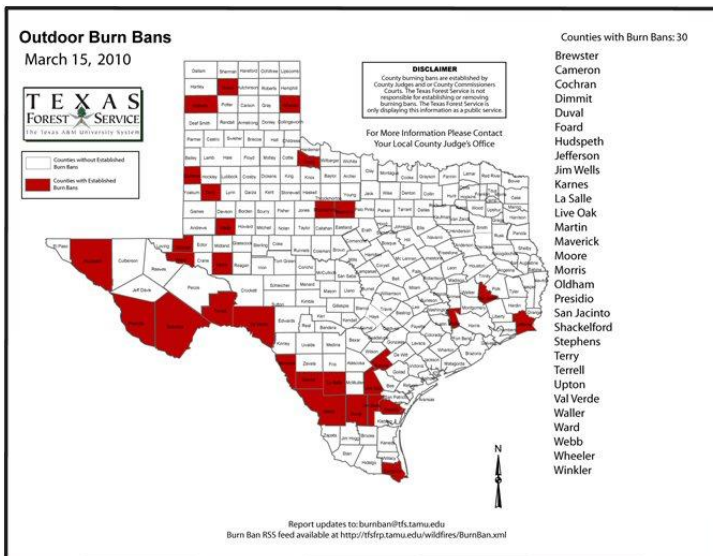


Figure 5 - Burn Bans Currently in Effect

The Texas Forest Service uses the Keetch-Byram Drought Index (KBDI) as a system for relating current and recent weather conditions to potential or expected fire behavior. It is a numerical index calculated daily for each county. Each number is an estimate of the amount of rain, in hundredths of an inch, needed to bring the soil back to saturation. The index ranges from 0 to 800, with 0 representing a saturated soil and 800 a completely dry soil. As shown below, the March 16th issuance of the KBDI shows that most of the region falls within the 0 to 200 range. The Rio Grande Plains have slightly drier values of 200 to 500 due slightly less rainfall.

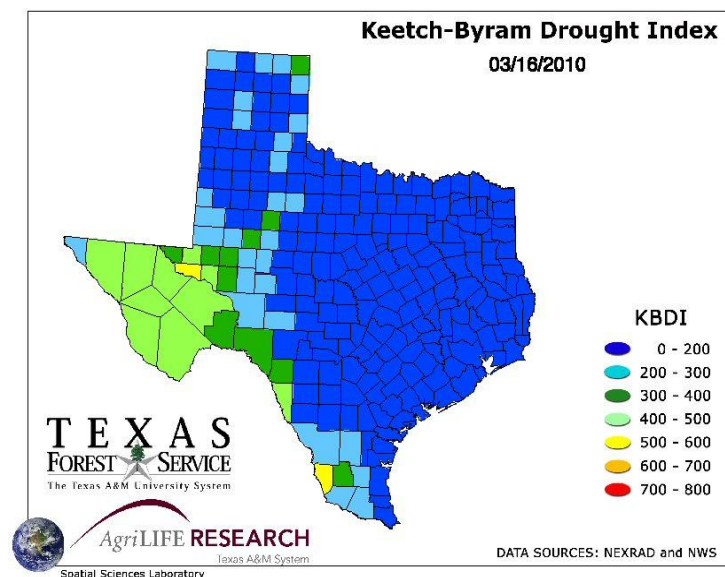


Figure 6 – KBDI Map

Agricultural Impacts

Each week, the [Climate Prediction Center \(CPC\)](#) analyzes the percent of available soil moisture as compared to normal. As of March 15th, the available soil moisture ranges from 30 to 90 percent of normal across South Central Texas.

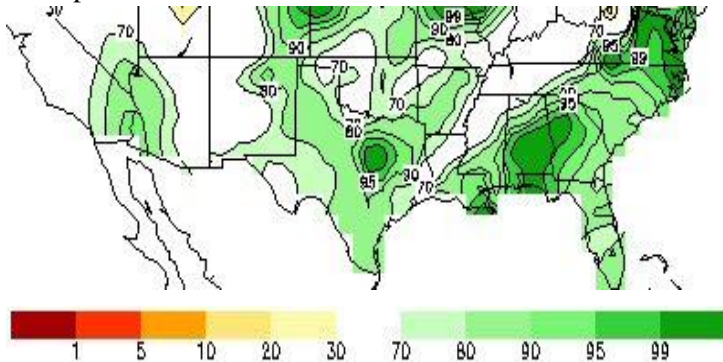
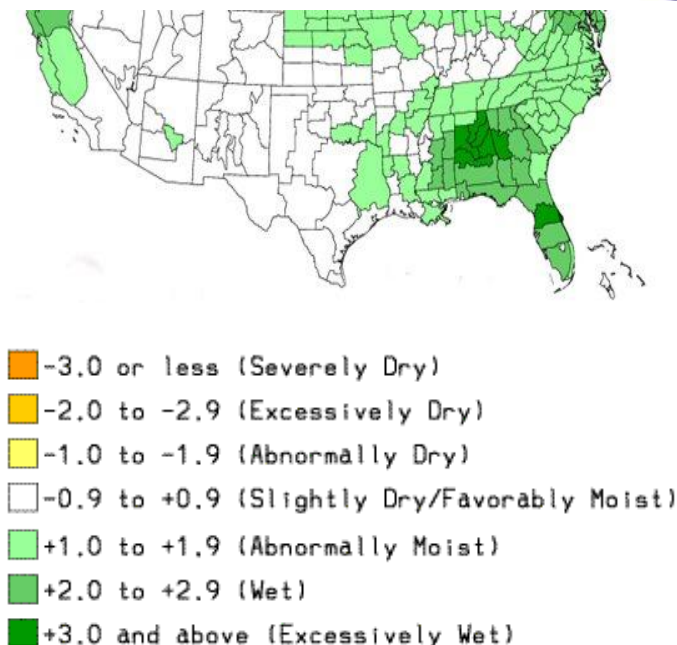


Figure 7 – Percent Available Soil Moisture

The Crop Moisture Index monitors short term need compared to available water across major crop producing regions. This index is not used to monitor long term drought conditions. The latest Crop Moisture Index issued by the CPC on March 13th indicated that short term moisture conditions are Slightly Dry to Favorably Moist across South Central Texas and the Hill Country.

Crop Moisture Index by Division Weekly Value for Period Ending MAR 13, 2010 Short Term Need vs. Available Water in 5 Ft Profile



Outlook

The CPC Outlook for April through June indicates a greater chance for below normal temperatures across South Central Texas (figure 8). The outlook also shows equal chances for normal, above normal or below normal rainfall through June across the region (figure 9). The next three-month outlooks are scheduled to be available on March 18th.



Figure 8 – Temperature Outlook

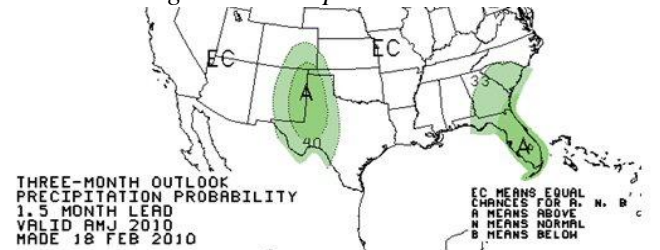


Figure 9 – Precipitation Outlook

As shown in figure 10, the latest U.S. Seasonal Drought Outlook indicates no significant changes to drought conditions are expected across South Central Texas through May 2010.

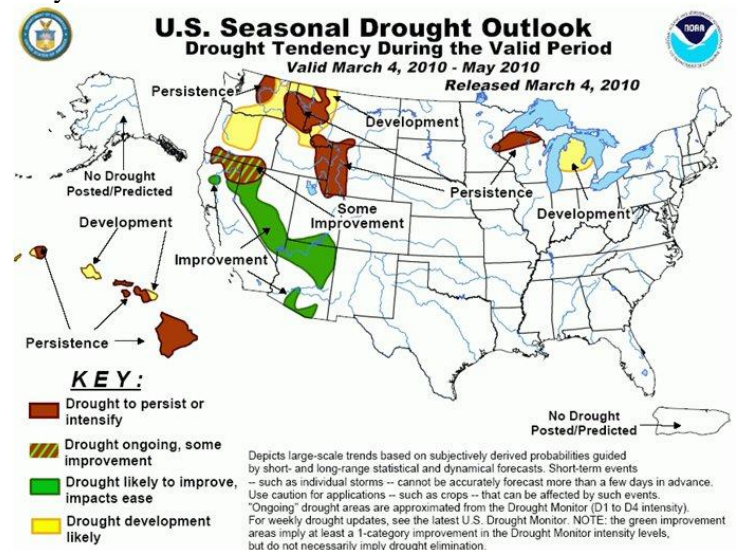


Figure 10 – U.S. Seasonal Drought Outlook Map

Contact Information:

Austin/San Antonio National Weather Service
2090 Airport Road
New Braunfels, TX 78130
830.606.3617

Website: <http://www.srh.noaa.gov/ewx/>

Email: sr-ewx.webmaster@noaa.gov

Drought Related Links:

The U.S. Drought Monitor:

<http://www.drought.unl.edu/dm/monitor.html>

The USGS WaterWatch:

http://waterwatch.usgs.gov/?m=pa07d_nwc&r=tx&w=map

TCEQ Map of Water Systems under Water Use Restriction

http://www.tceq.state.tx.us/permitting/water_supply/pdw/trot/location.html

The Texas Counties Burn Ban Map:

<http://www.tamu.edu/ticc/>

The KDBI County Average Map:

<http://txforestservice.tamu.edu/main/popup.aspx?id=1991>

CPC Soil Moisture:

http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml

Texas AgNews:

<http://agnews.tamu.edu/>

CPC Outlook Maps:

<http://www.cpc.ncep.noaa.gov/>

CPC U.S. Seasonal Drought Outlook:

http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html
